A NEW AID IN THE DIAGNOSIS OF CONGENITAL DISLOCATION OF THE HIP

Thirty-two patients had undergone operative treatment without the results of the electrical tests being available to the surgeon. They had found abnormalities at operation in 84% of cases. However, the ability of the electrical tests to detect any abnormality had been no better than clinical examination or radiculography. Moreover, in predicting the level of entrapment, they had been inferior to radiculography. The authors felt that this reflected the anatomical variation of innervation and the fact that some patients had had previous radiculopathies at other levels. In 10 cases the electrical tests had been incorrect, and in three had shown misleading abnormalities. In conclusion, they felt that although in a number of cases the electrical tests could have been helpful, in the group as a whole they had been more likely to mislead than to add to information already obtained from clinical examination and radiculography.

In the discussion *C. J. M. Getty* (Sheffield) asked how many patients had had nerve root entrapment due to bone as compared with those whose entrapment was due to a disc. He also asked whether the electrical studies were similar to those reported by the Royal National Orthopaedic Hospital the previous year. Mr Crawshaw replied that he did not have the figures of how many were due to bony as against disc entrapment. The electrical studies were carried out with the Royal National Orthopaedic Hospital study in mind but there were some differences. Dr Smith added that he had tried to replicate the Royal National Orthopaedic Hospital study but felt that there were some shortcomings. He felt that the H-reflex was more accurate than the ankle jerk test used in the Royal National Orthopaedic Hospital studies and that the F-wave abnormalities were frequently unsatisfactory. *A. W. F. Lettin* (London) stated that as a user of electrophysiological results he felt that the interpretation of these tests was very subjective. He pointed out that in the Royal National Orthopaedic Hospital study the patients were selected on clinical rather than radiographic or electrophysiological grounds.

Prospective CT study of the effect of chemonucleolysis—*J. G. Konings, F. J. B. Williams* and *R. Deutman* (Groningen, The Netherlands). This paper will be published in full in the next issue (*J Bone Joint Surg [Br]* 1984;**66–B**:No. 3).

In the discussion *R. C. Mulholland* (Nottingham) congratulated the authors on their paper. He felt that the CT scan was a very good investigation and asked whether as a result of their study the authors had abandoned water-soluble invasive radiculography. Would they use the appearance of the scan to make the decision whether to operate or not? Dr Konings replied that he thought CT scans were reliable and could remove the hazards of an invasive procedure such as myelography. *T. S. Mangat* (Stourbridge) asked whether, for those who did not have the benefit of CT scans, it was possible to distinguish an area of bulging from a herniated disc by clinical and radiological studies. Dr Konings replied that this was not possible. *J. C. T. Fairbank* (London) commented that there was some evidence that disc height could recover with time. Dr Konings replied that they were going to repeat their studies one year after the chemonucleolysis and he should then be able to report whether or not patients regained disc height. *K. Norcross* (Birmingham) said he felt that for most situations the surgeon should rely on clinical signs and symptoms rather than expensive and time-consuming CT scans and electrophysiological tests.

Combined bony and vascular limb trauma: a new approach to treatment—*J. R. M. Elliott, J. Templeton* and *A. A. B. Barros D'Sa* (Belfast) presented temporary intraluminal vascular shunting as a means of substantially reducing the duration of ischaemia during the initial surgical management of patients with combined bony and vascular limb trauma. The shunts employed were of a type already being successfully used to maintain cerebral circulation during carotid surgery. Ten unselected cases, in which the use of a temporary intraluminal vascular shunt enabled relief of limb ischaemia before fracture stabilisation, were discussed. A number of surgeons, of varying experience, were involved in their management. In seven cases gunshot wounds were the cause of injury, and in three it was a road traffic accident. Various upper and lower limb vessels were damaged. Two humeri, eight femora and one tibia were fractured and palsies of major nerves were sustained in eight. The ischaemic interval in nine was between 1½ and 6 hours and in one it was 22 hours.

On admission the history and examination were followed by adequate resuscitation and then transfer to the operating theatre. Priority was given to re-establishing circulation by shunting all damaged major vessels. The fracture was then stabilised using a variety of methods of fixation, both internal and external. Finally, definitive vascular repair was performed. A policy of shunting and repair of all damaged major veins led to a diminished requirement for fasciotomy. After operation, complications were initially vascular, but subsequently all the repaired vessels functioned and any further problems were either orthopaedic or, more commonly, neurological. The duration of inpatient stay was from 5 to 17 weeks. Outpatient follow-up had varied between 14 months and 4 years. There were no deaths and no amputations. The result in terms of limb function were good in four, moderate in two and poor in four.

In the discussion *Professor D. L. Hamblen* (Glasgow) asked how far distal it was possible to perform such a shunt in the limb. He also asked how the time taken to perform a shunt compared with that for a formal vein graft. Mr Elliott answered that they had had no experience in the distal half of the limb, but there was no theoretical reason for not being able to use the shunt in that situation. It took about five minutes to insert the shunt.

A new aid in diagnosis of congenital dislocation of the hip—*G. H. Cowie, B. A. Bogues, W. G. Kernohan* and *Professor R. A. B. Mollan* (Belfast). This work has already been reported (*J Bone Joint Surg [Br]* 1983;**65–B**:656).

In the discussion *N. J. Blockey* (Glasgow) asked whether it was possible to use the machine in the maternity hospital, and whether it was possible to test every baby born. Mr Cowie replied that a trust fund had been set up in Belfast to do this. *G. P. Mitchell* (Edinburgh) stated that despite this new aid one was still depending on the human factor of the examiner who has to diagnose the click. Mr Cowie replied that the human factor was still important and that the machine was simply a diagnostic aid which the examiner could use.

Computerised tomography of the anterior cruciate ligament—*J. A. Chapman* and *D. Rickards* (Manchester) reported the use of computerised tomography (CT) for the evaluation of clinically suspected lesions of the anterior cruciate ligament in 20 patients. Both knees had been scanned in each case with the patient in the supine position with the knees extended. There had been no previous introduction of either air or contrast medium. Thin contiguous 1.5 mm sections were obtained to include the origin and insertion of the cruciate ligaments and computerised reconstructions in the sagittal plane were generated across the knee to show the anterior and posterior cruciate ligaments. These reconstructions had been reviewed by one observer who was unaware of the clinical findings. The opposite normal knee was used as a control. There was good correlation between the